Document: 2004-0015-0004

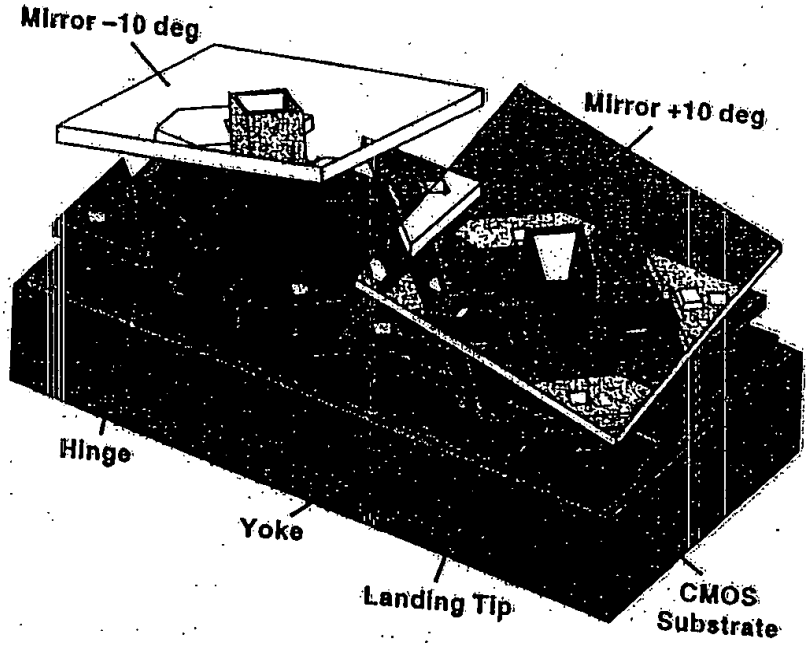

FIGURE 1

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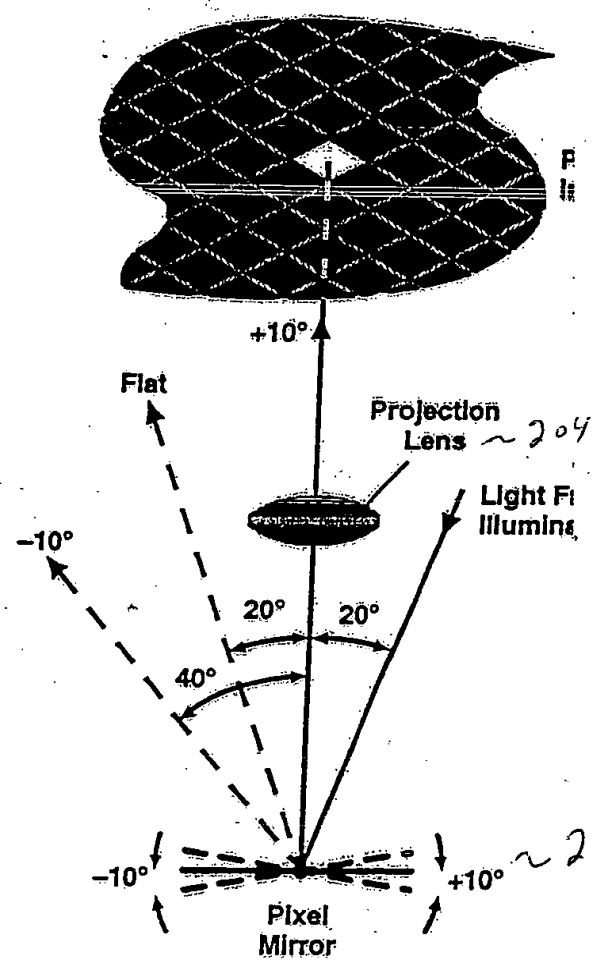

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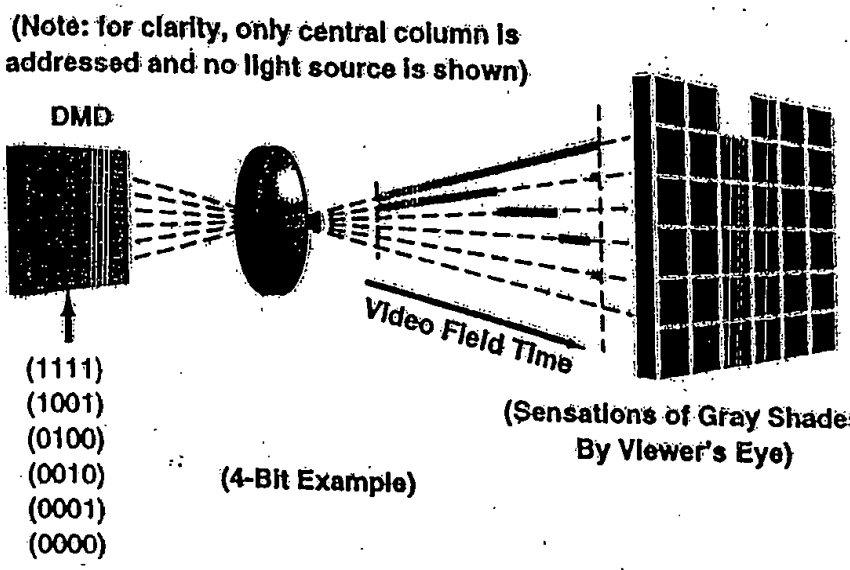

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FIGURE 3

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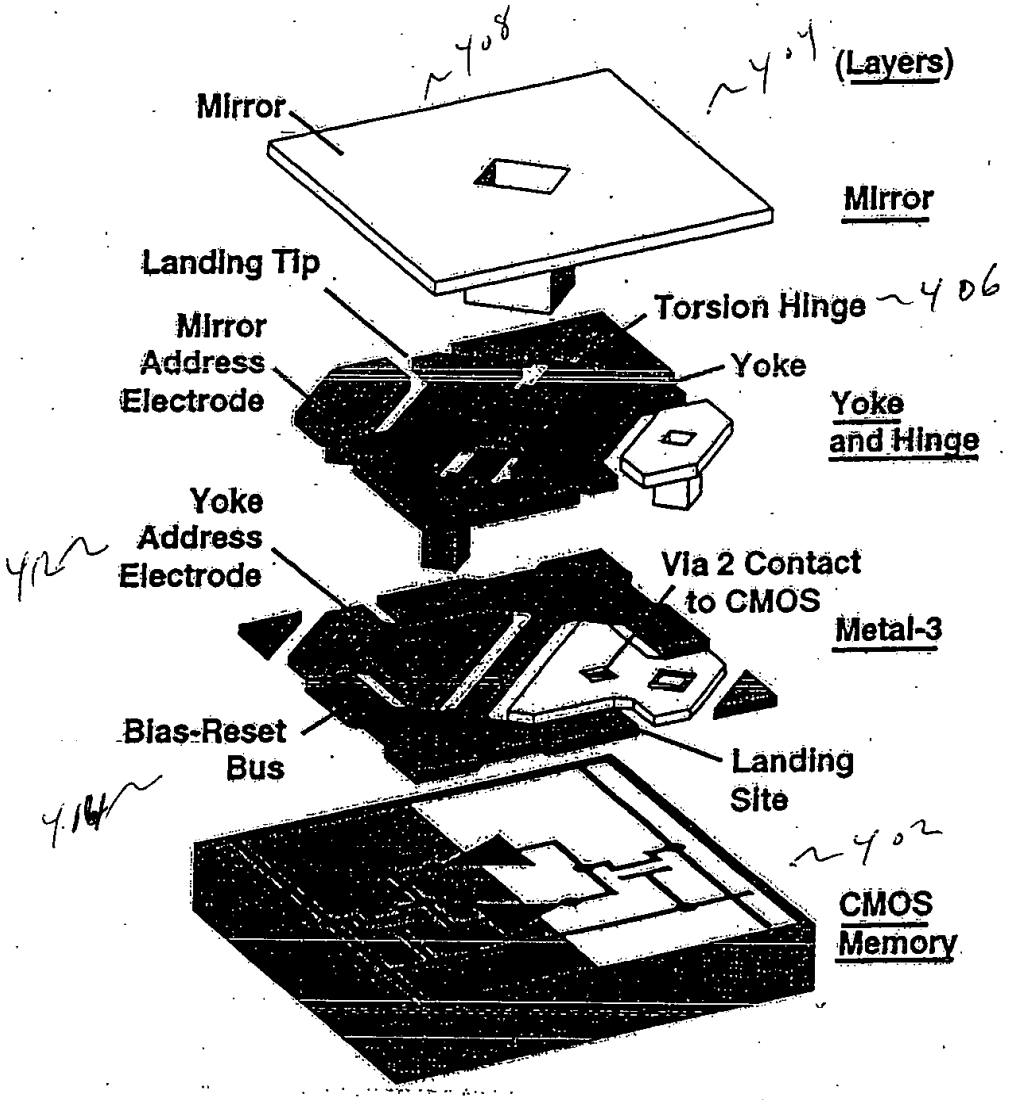
Scanned with CamScanner



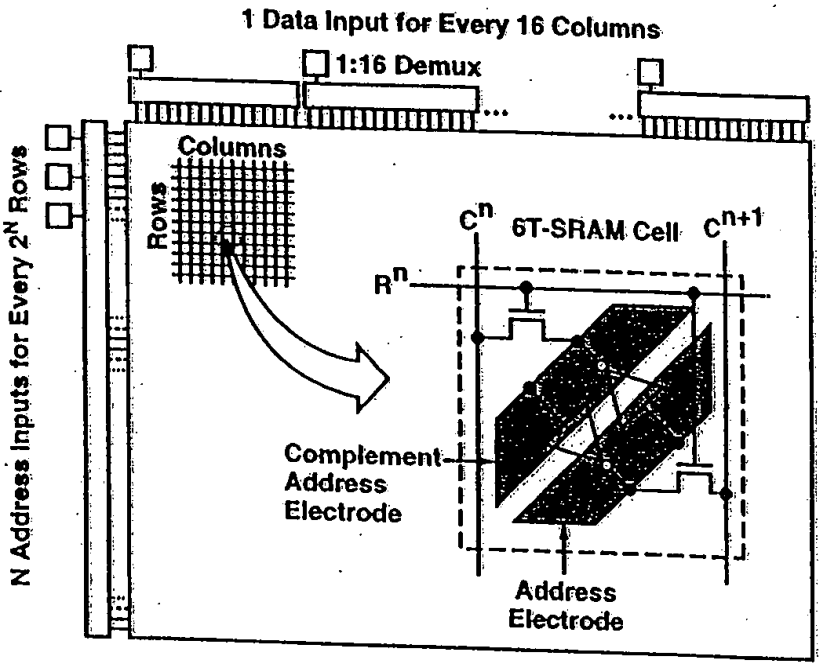

1 Data Input for Every 16 Columns
1:16 Demux
N Address Inputs for Every 2^N Rows
Columns
Rows
C^n
6T-SRAM Cell
C^{n+1}
R^n
Complement Address Electrode
Address Electrode

FIGURE 5

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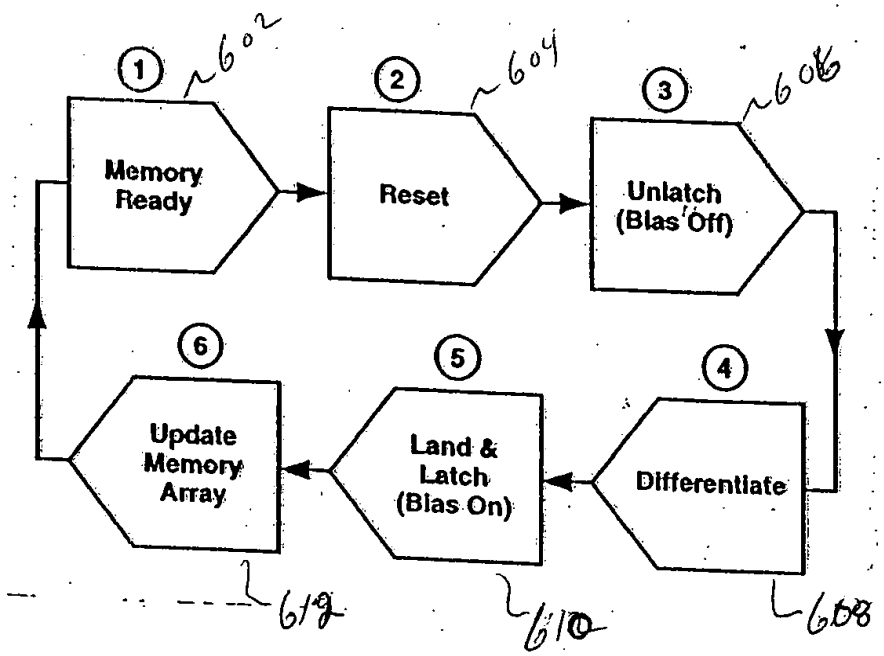
1
602
Memory Ready
2
604
Reset
3
606
Unlatch (Bias Off)
4
Differentiate
608
5
Land & Latch (Bias On)
610
6
Update Memory Array
612

FIGURE 6

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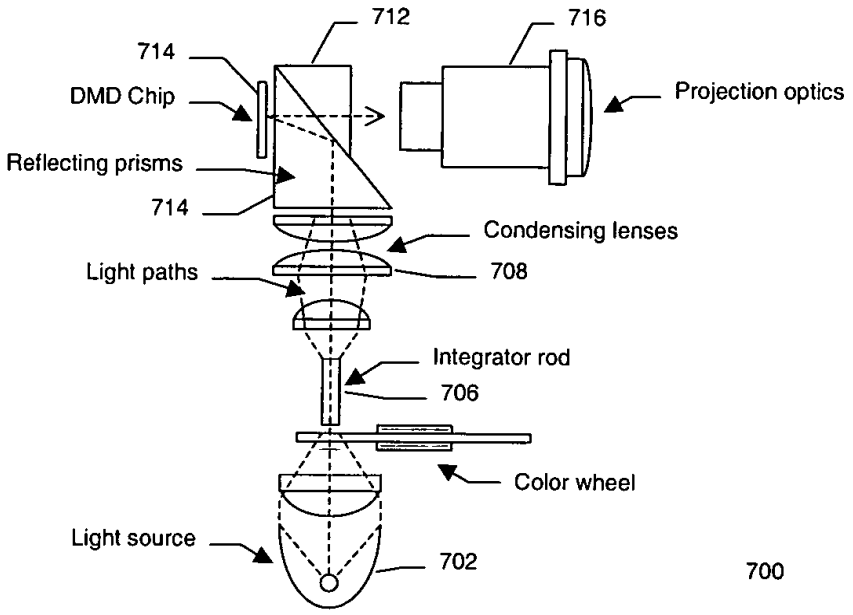

Figure 7 - Single-Chip DMD Projection System – Example 1

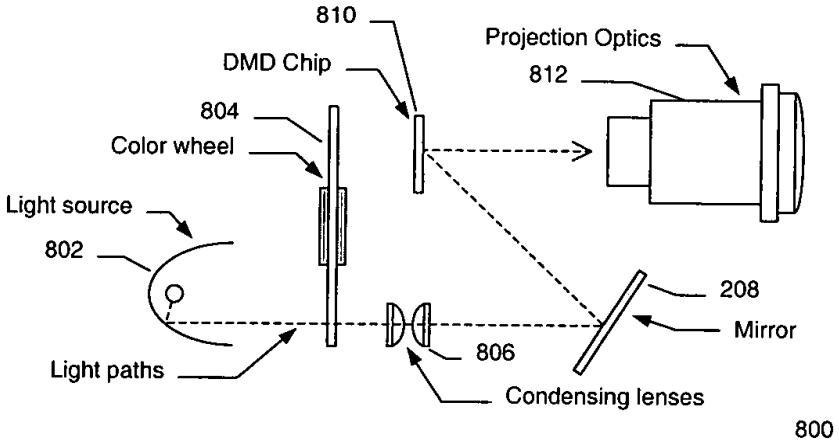

Figure 8 - Single-Chip DMD Projection System – Example 2

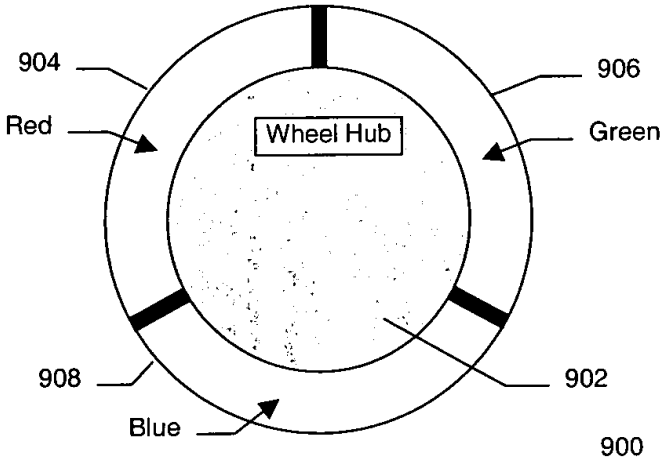

Figure 9 - Three-Segment Color Wheel for Single Chip DMD Projection Systems

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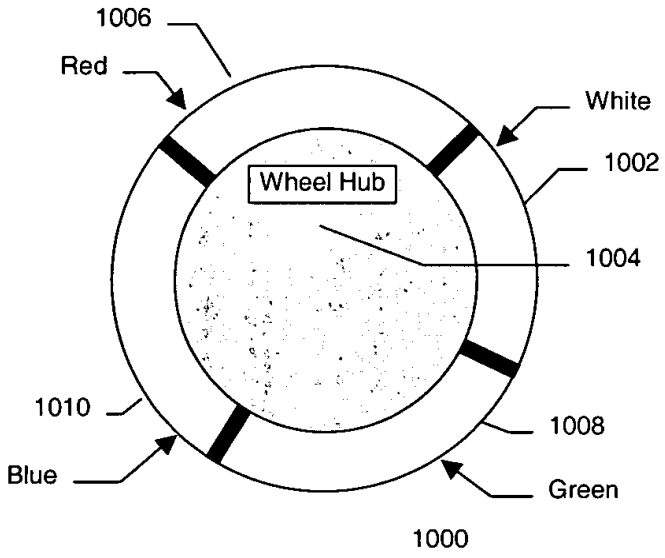

Figure 10 - Four-Segment Color Wheel for Single Chip DMD Projection Systems

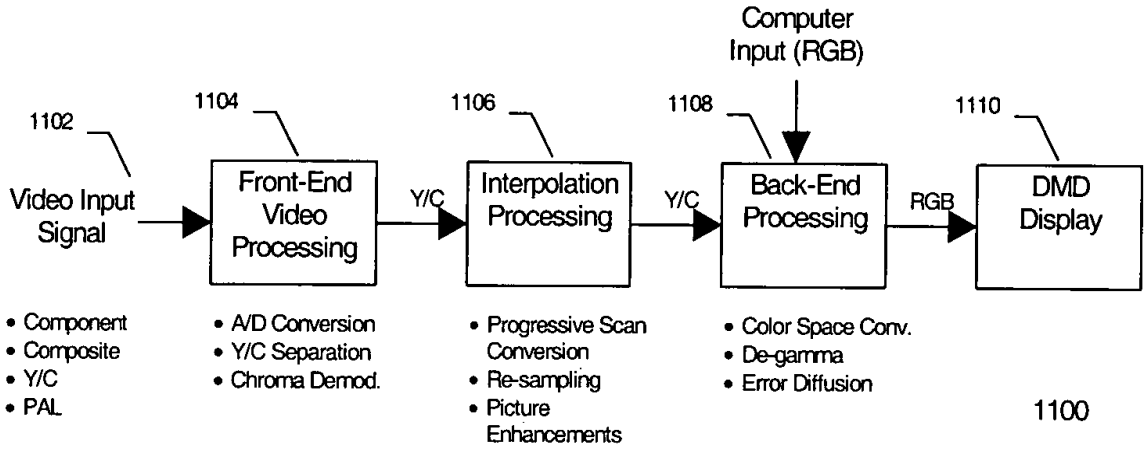

Figure 11 – 2D DMD Projector Video Processing Block Diagram for Single-Chip DLP Projector

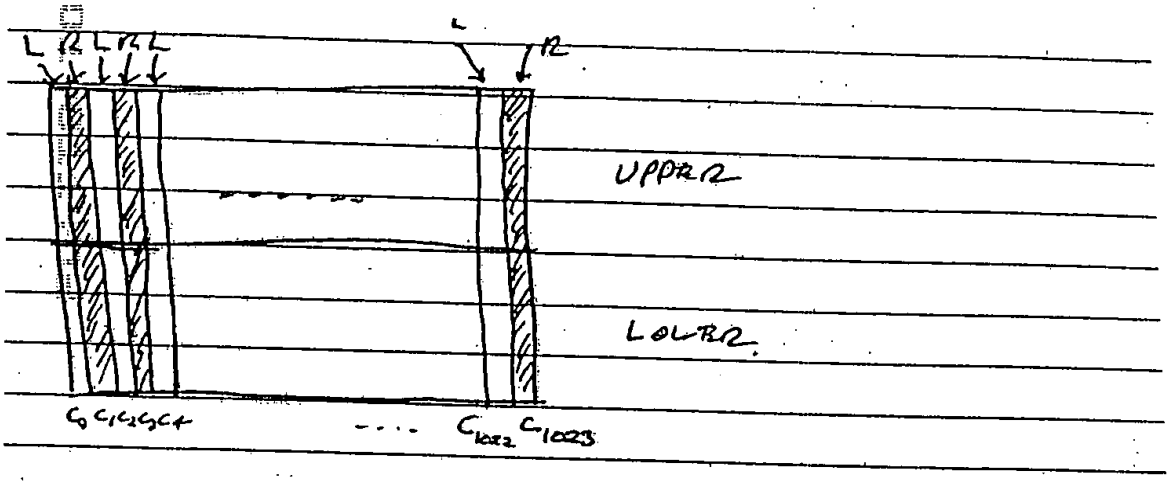

FIGURE 10

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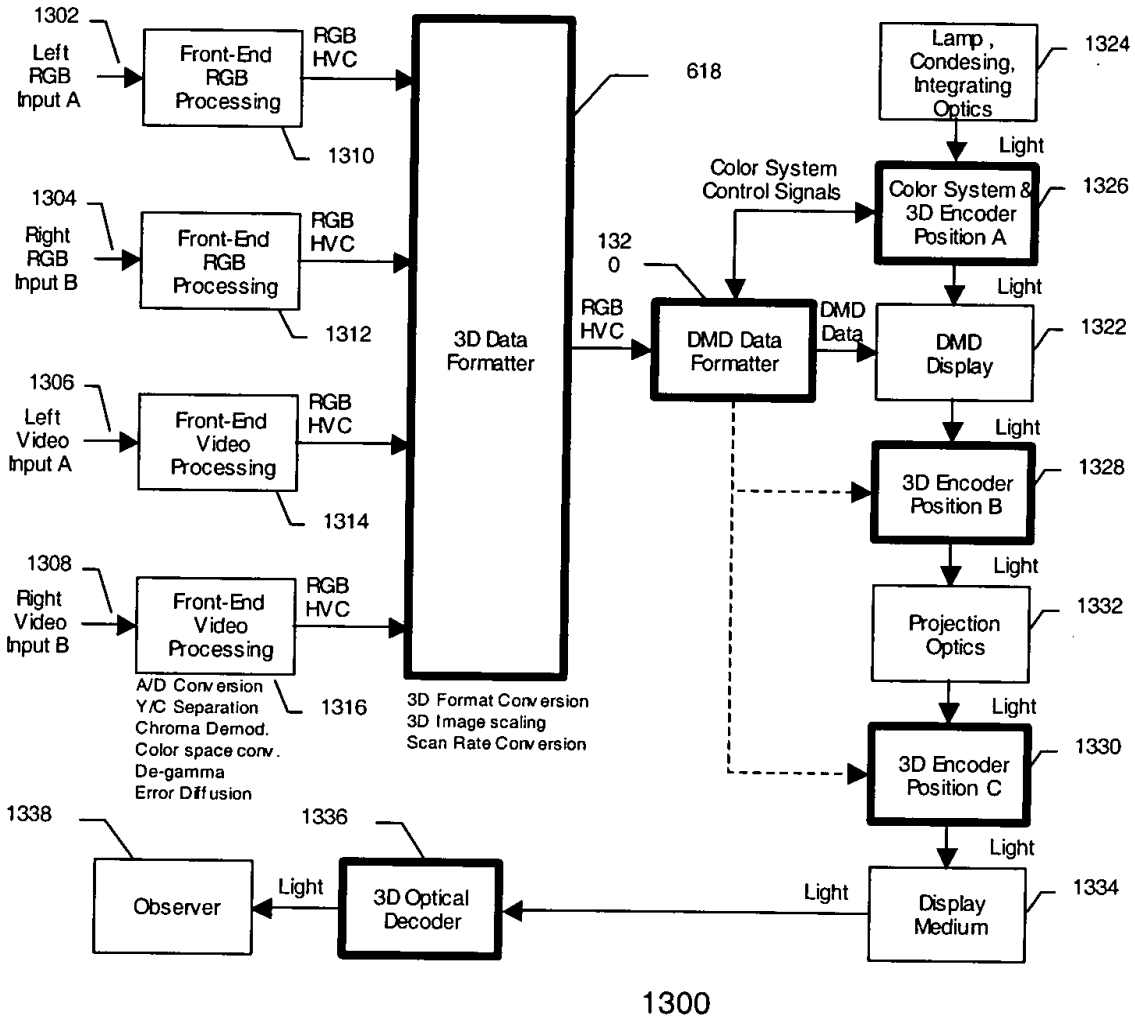

Figure 1 - Signal Flow and Optics Block Diagram for DMD Based 3D Projection System

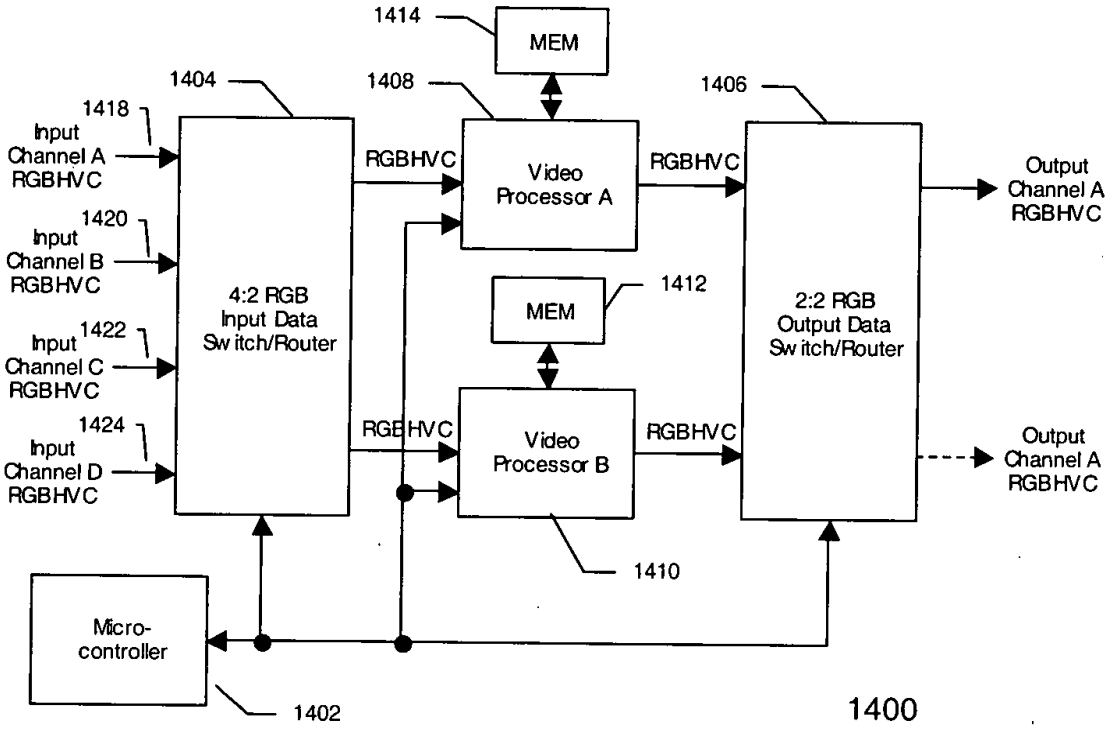

Figure 14 - 3D Data Formatter Block Diagram

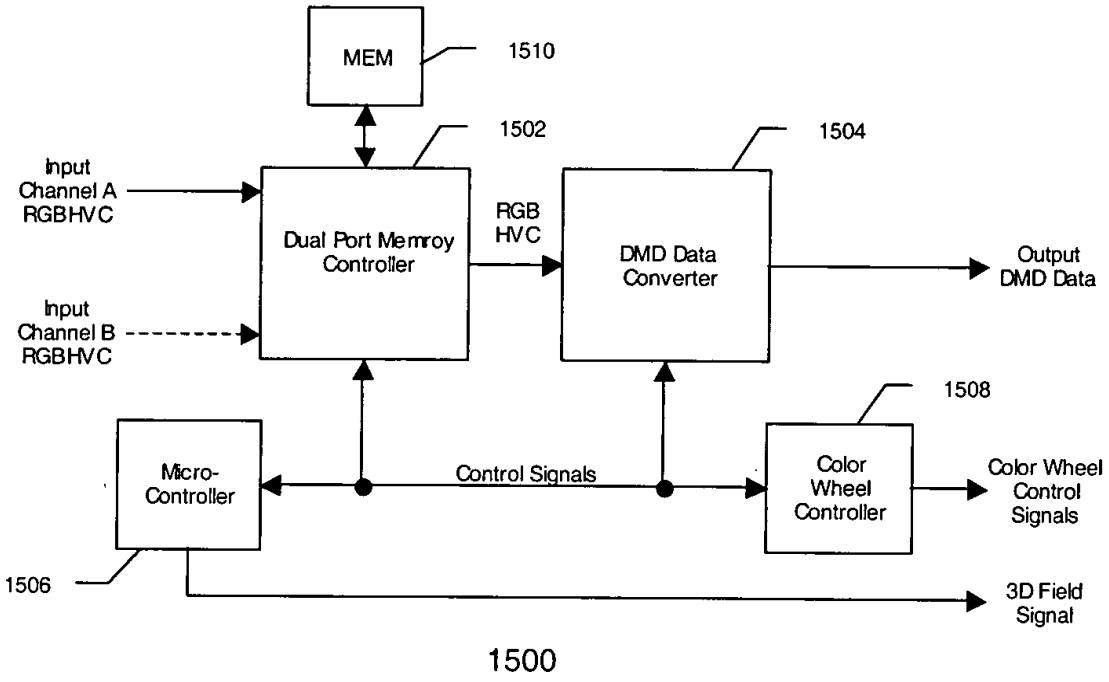

Figure 15 - DMD Data Formatter Block Diagram

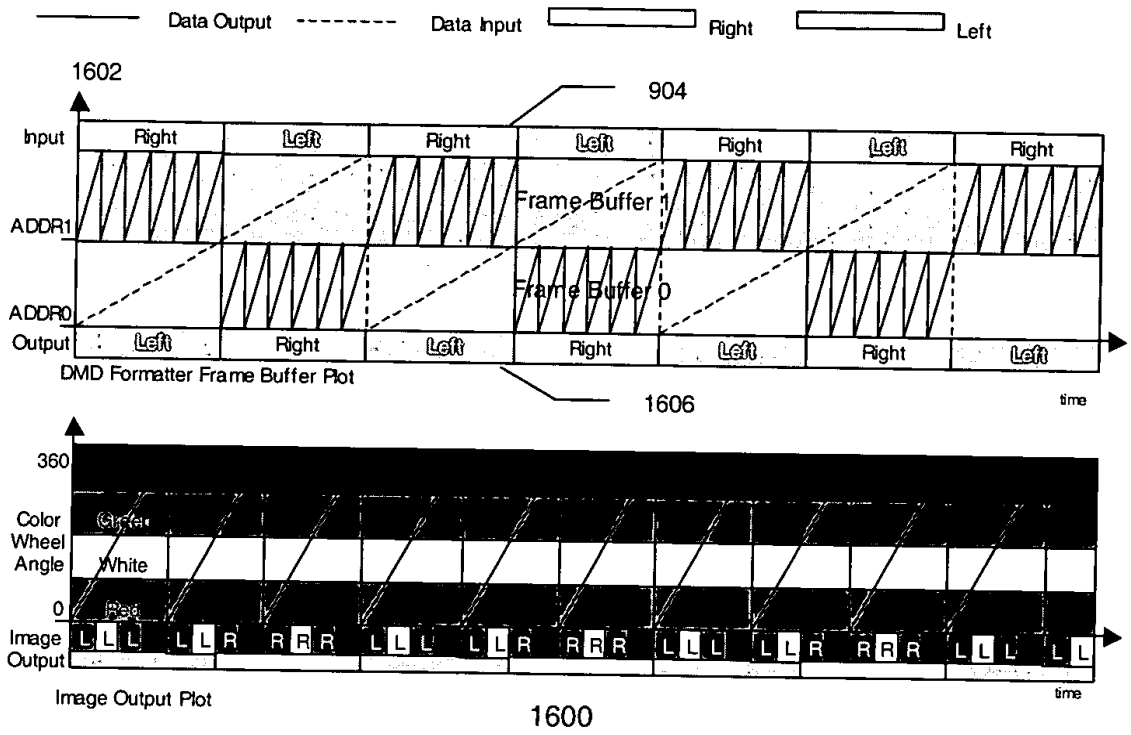

Figure 16 - DMD Data Formatter Chart for Input Synchronized Frame Sequential 3D Input Using Four-Segment Color Wheel (Chart applies to 75Hz, 80Hz, and 85Hz input signals)

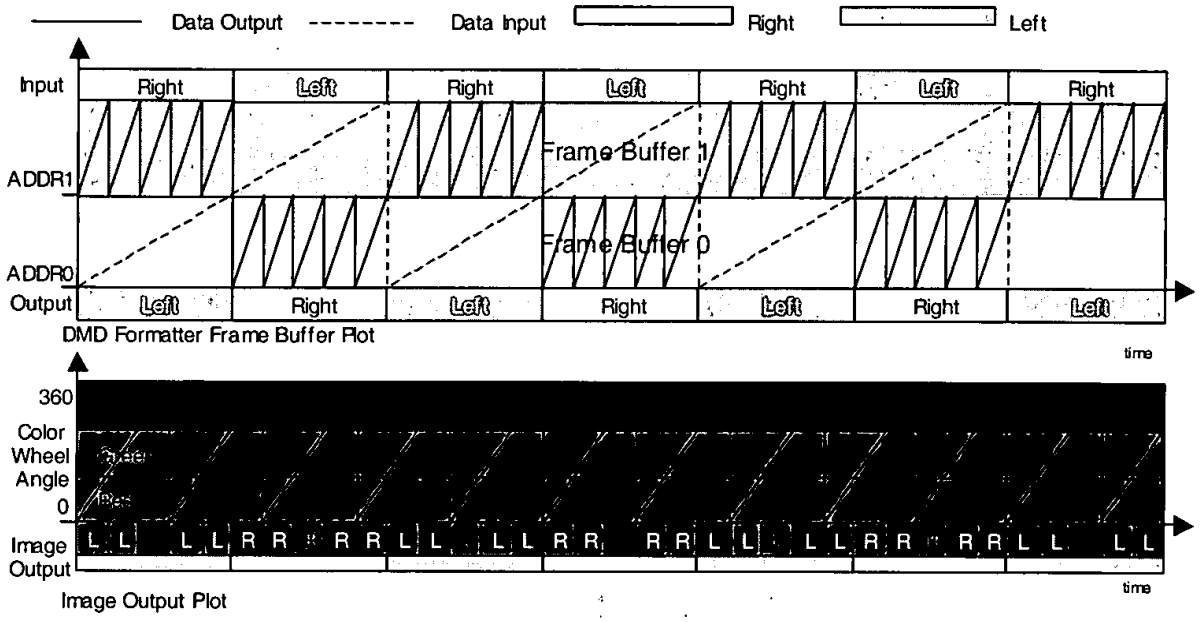

Figure 17 - DMD Data Formatter Chart for Input Synchronized Frame Sequential 3D Input Using Three-Segment Color Wheel (Chart applies to 72Hz, 75Hz, and 80Hz input signals)

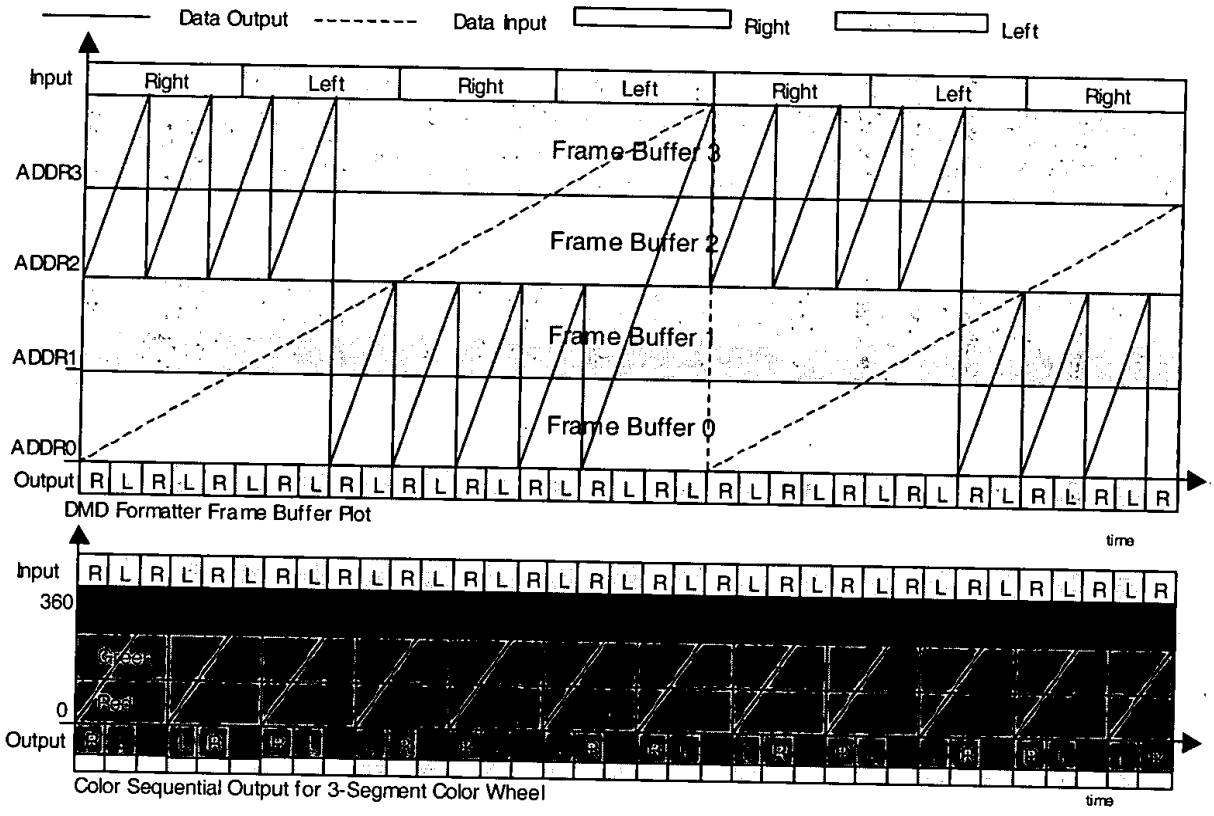

Figure 18 - Input Synchronized Color Sequential 3D Using a Three Segment Color Wheel and Quad Frame Buffer (Chart applies to 72Hz, 75Hz, and 80Hz input signals)

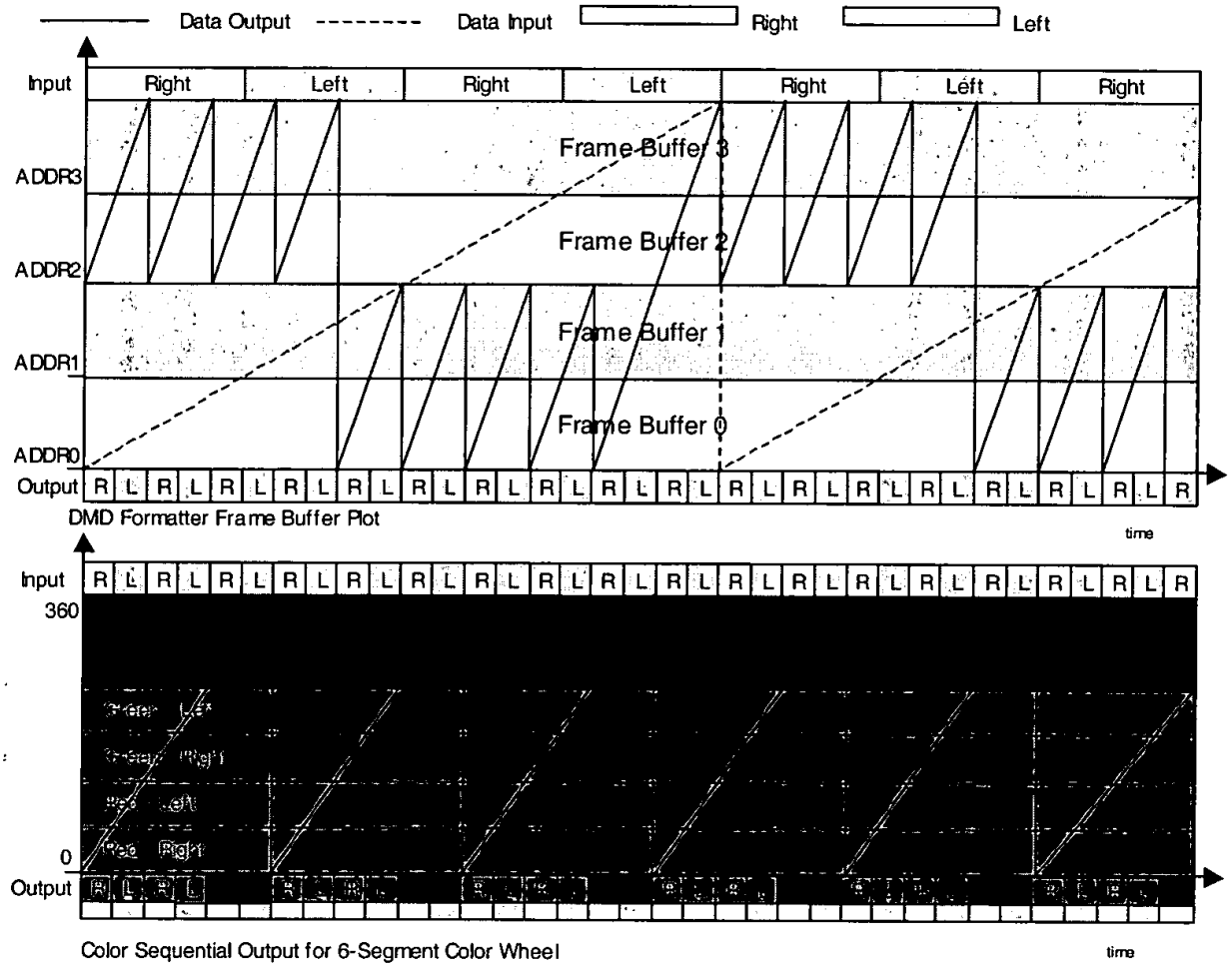

Figure 19 - Input Synchronized Color Sequential 3D Using a Six-Segment Color Wheel and Quad Frame Buffer (Chart applies to 72Hz, 75Hz, and 80Hz input signals)

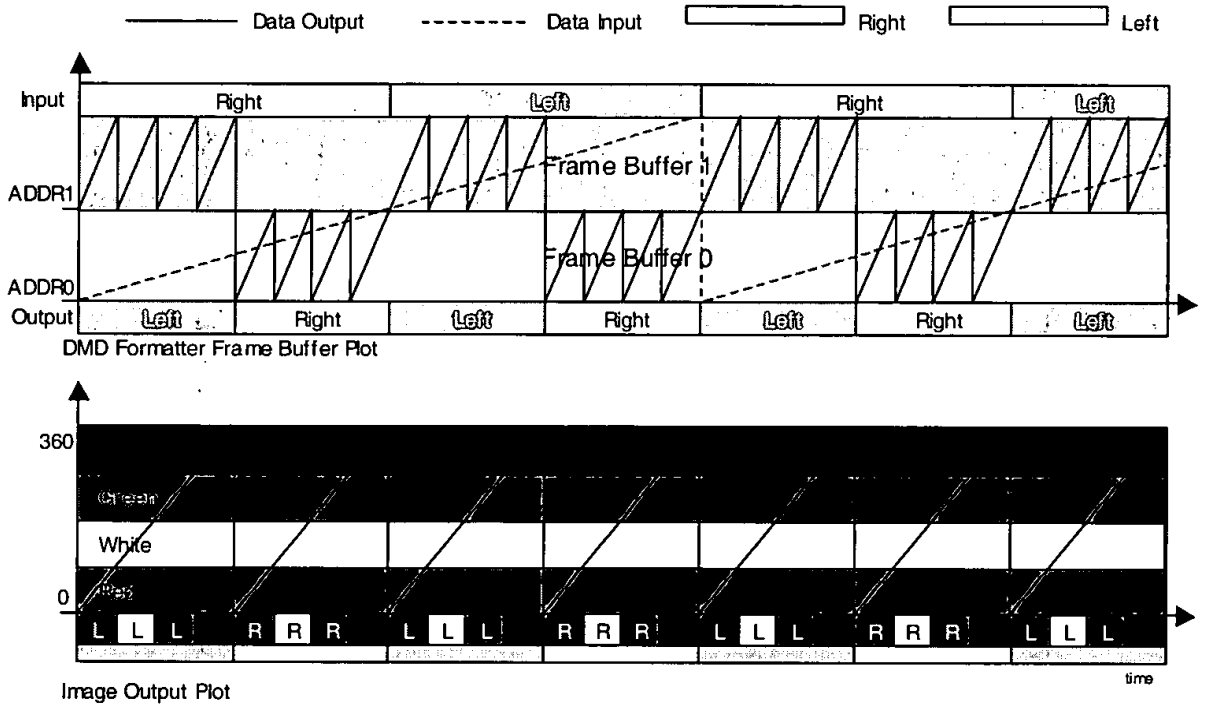

Figure 20 - DMD Formatter Chart for Output Synchronized Frame Sequential 3D Format for 60Hz Input Using a Four-Segment Color Wheel

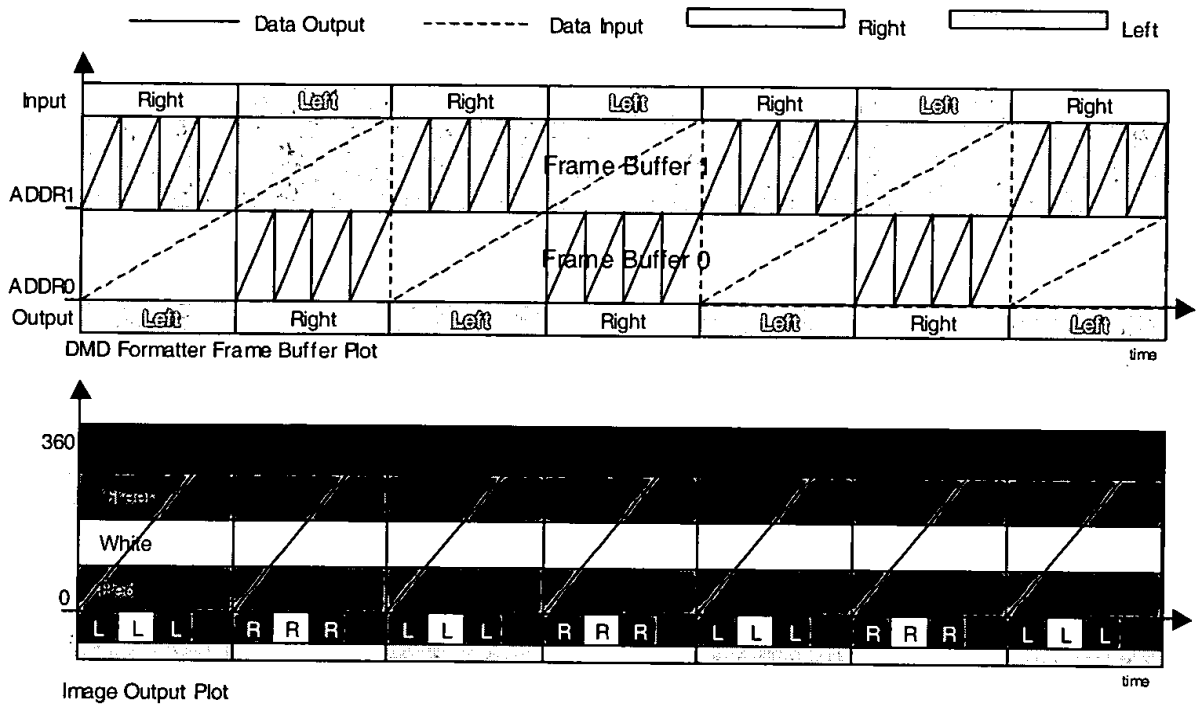

Figure 21 - DMD Formatter Chart for Output Synchronized Frame Sequential 3D Format for 120Hz Input Using a Four-Segment Color Wheel

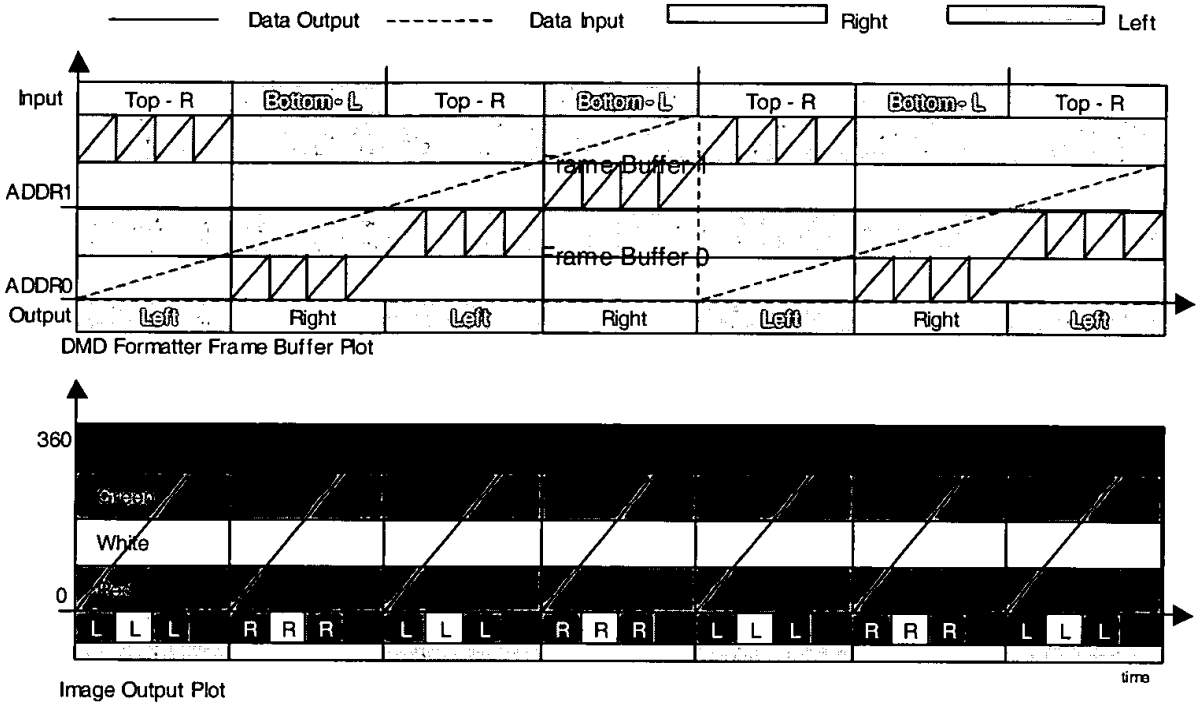

Figure 22 - DMD Formatter Chart for Output Synchronized Frame-Sequential 3D Format for 60Hz Over-Under 3D Input using a Four-Segment Color Wheel

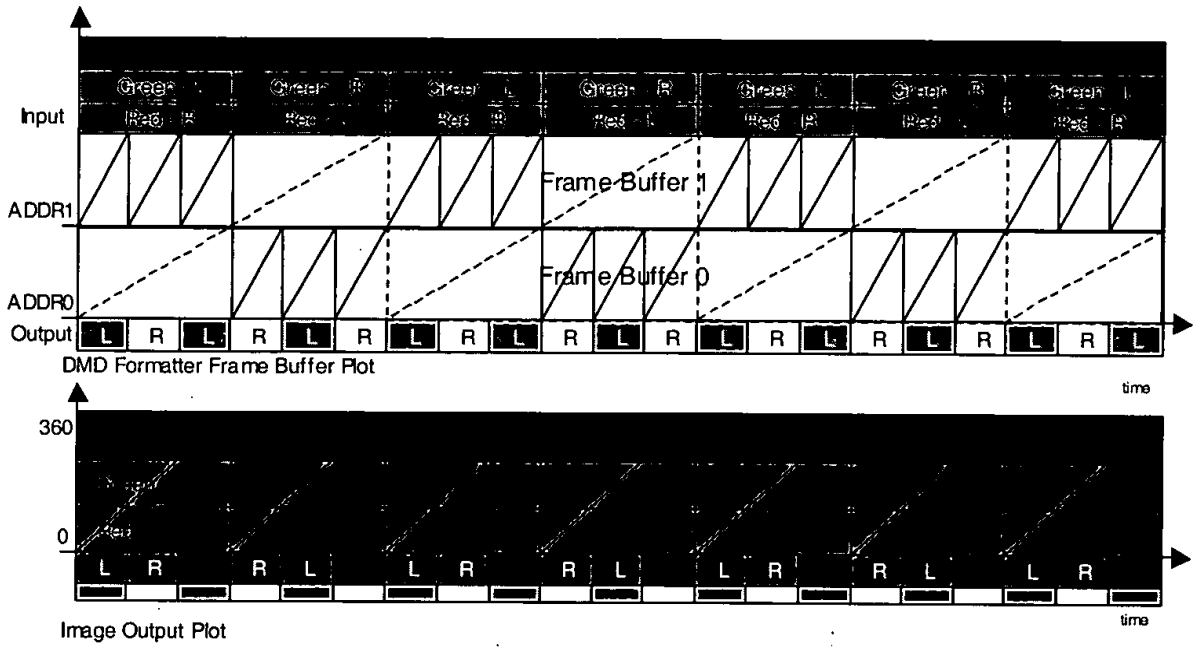

Figure 23- DMD Formatter Chart for Output Synchronized Color Sequential 3D Format for 120Hz Color-Sequential 3D Input, Using a Three-Segment Color Wheel

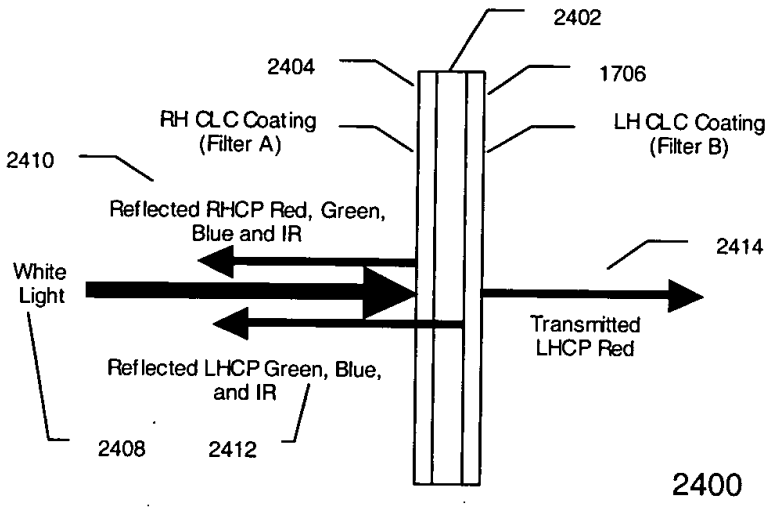

Figure 24 - Cholosteric Liquid Crystal Reflective Circular Polarizing Red Filter (Similar for White, Green, or Blue)

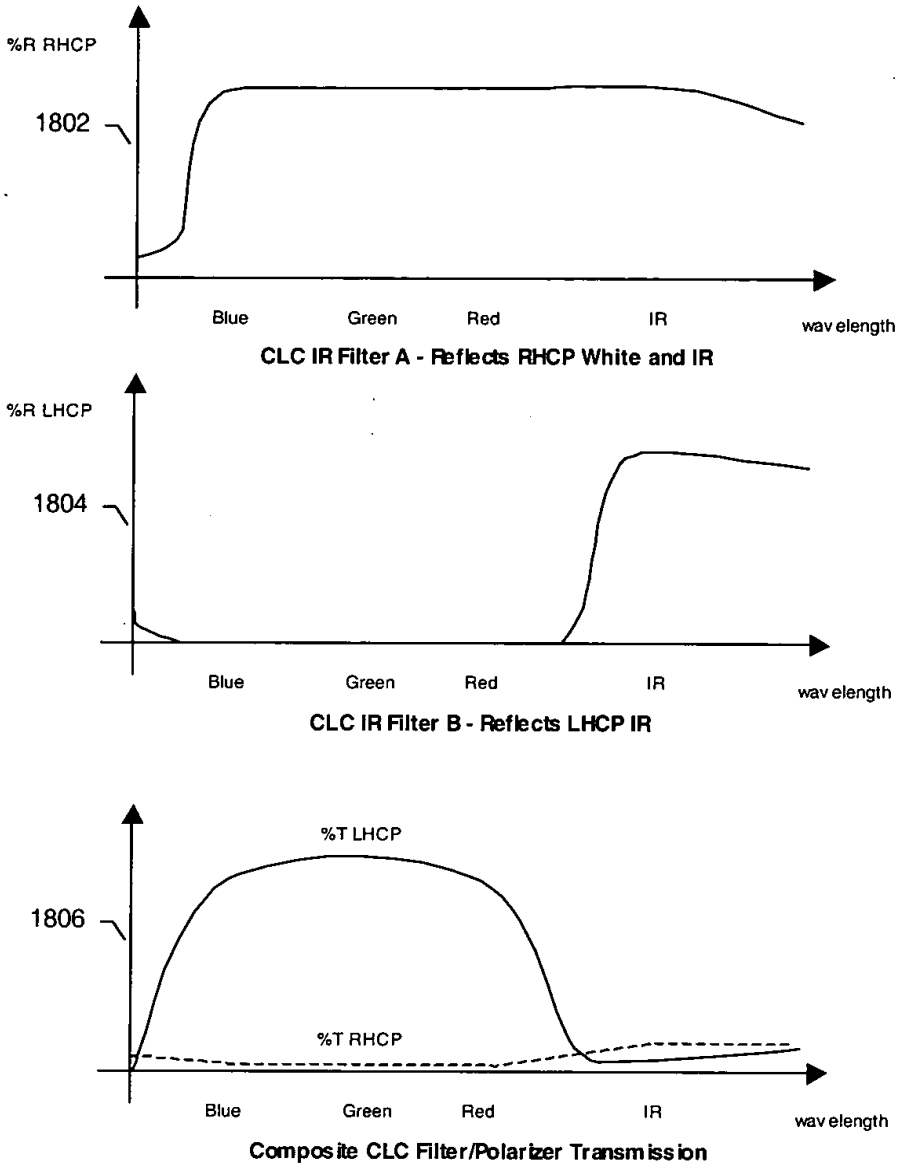

Figure 25 - Spectral Response for CLC IR Filter/Circular Polarizer

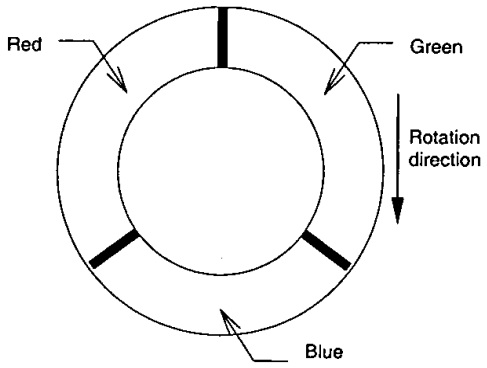

Figure 26 - Three-Segment Color Wheel Type CW-A

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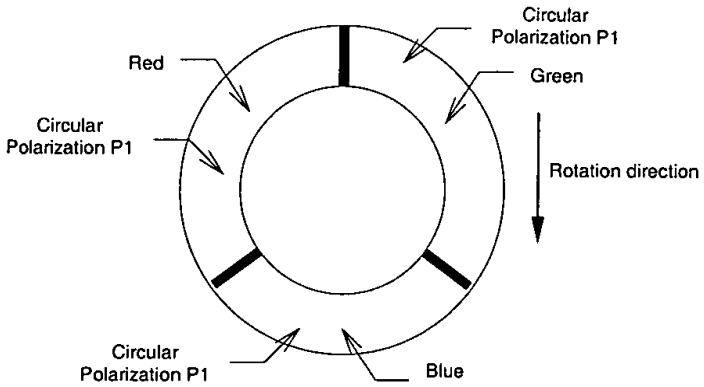

Figure 27 - Three-Segment Color Wheel Type CW-B

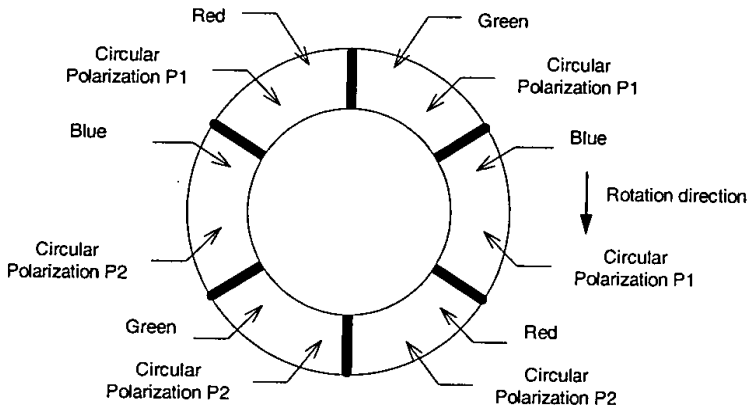

Figure 28- Six-Segment Color Wheel Type CW-C

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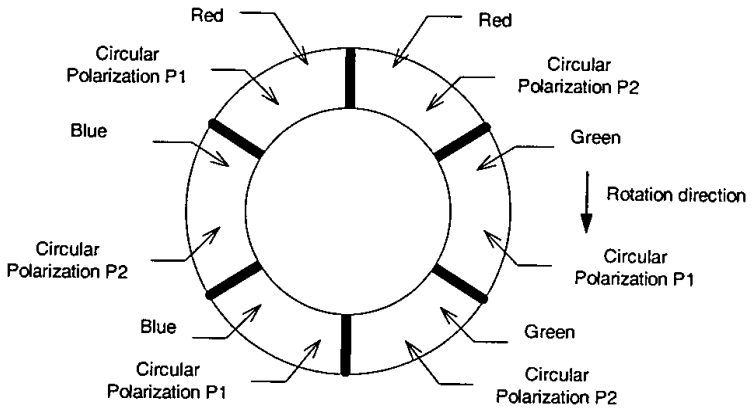

Figure 29 - Six-Segment Color Wheel Type CW-D

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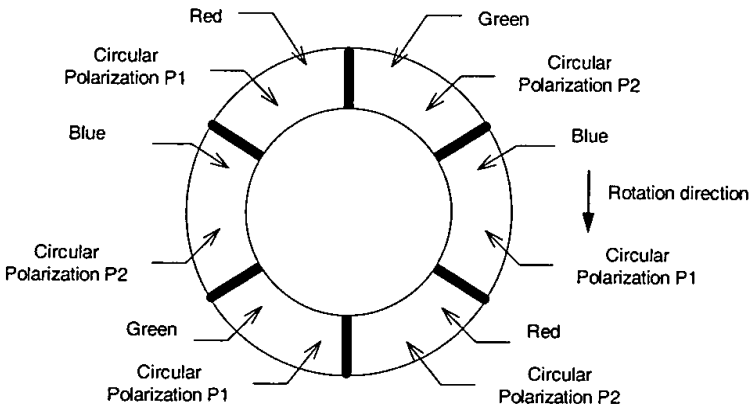

Figure 30- Six-Segment Color Wheel Type CW-E

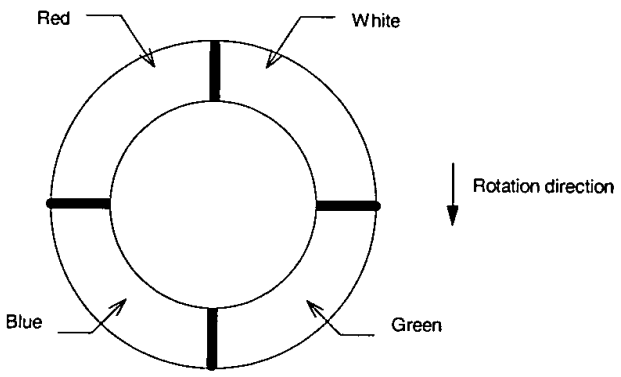

Figure 31 - Four-Segment Color Wheel Type CW-F

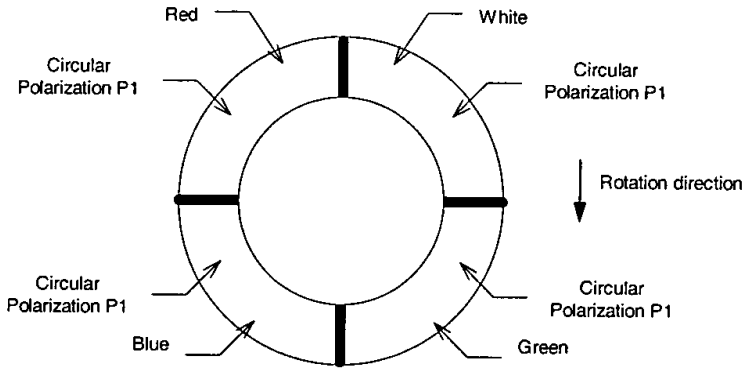

Figure 32 - Four-Segment Color Wheel Type CW-G

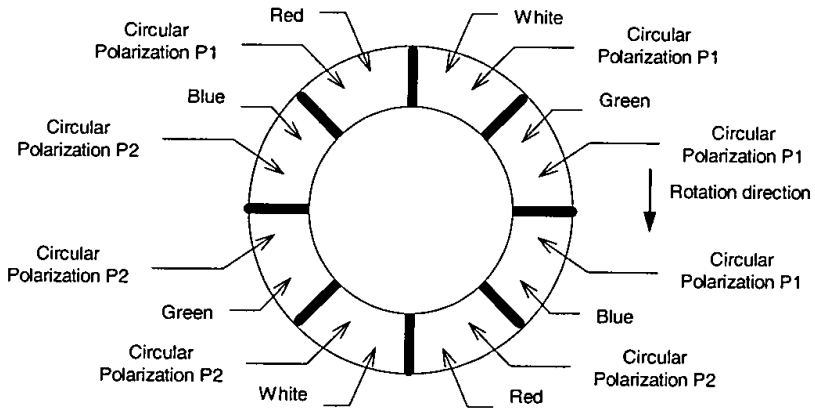

Figure 33 - Eight-Segment Color Wheel Type CW-H

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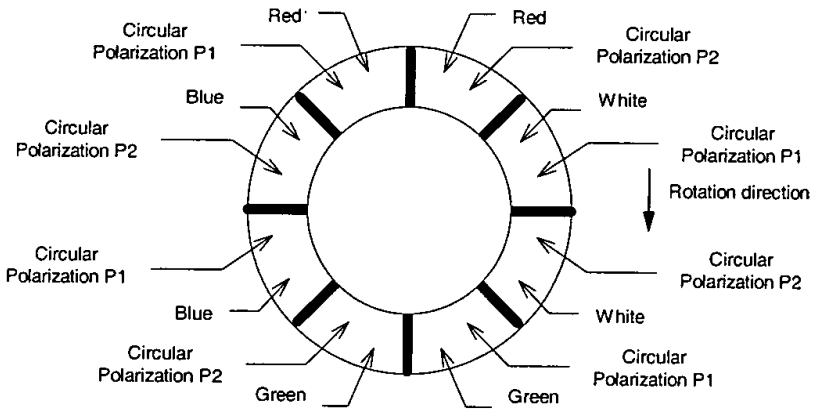

Figure 34 - Eight-Segment Color Wheel Type CW-I

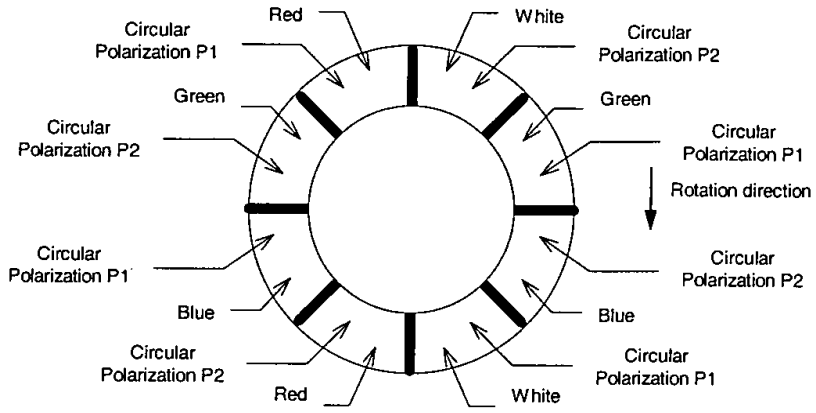

Figure 35 - Eight-Segment Color Wheel Type CW-J

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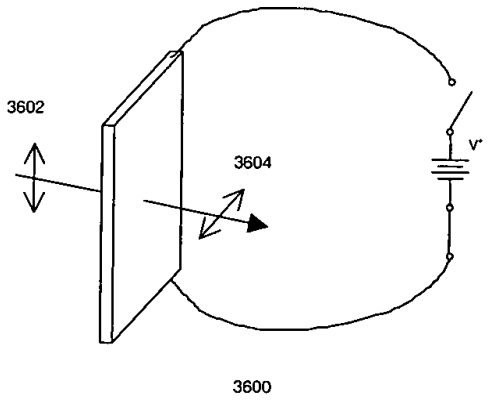

Figure 36 - Liquid Crystal Rotator with no Applied Terminal Voltage

WO 2004/090626 PCT/US2004/010903

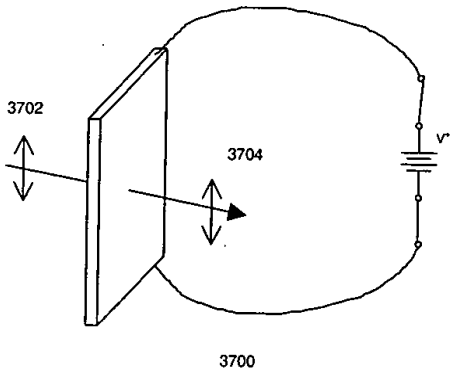

Figure 37 - Liquid Crystal Rotator with Applied Terminal Voltage

WO 2004/090634 PCT/US2004/010103

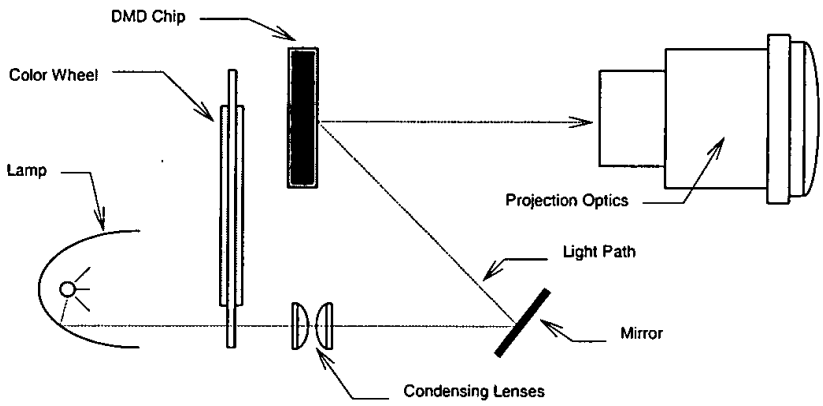

Figure 38 - DMD Based Stereo 3D Projector, 3D Optical Configurations: A, B, H, I, K, M, N, S, U, W

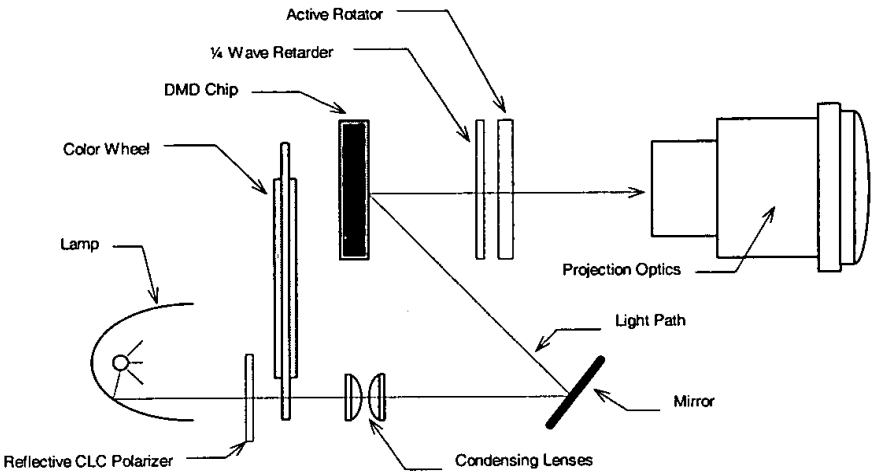

Figure 39. DMD Based Stereo 3D Projector, 3D Optical Configurations: C and O

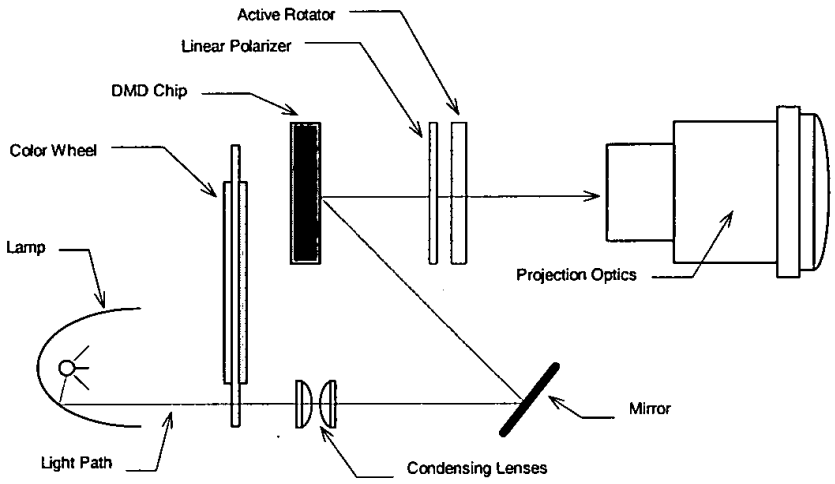

Figure 40. DMD Based Stereo 3D Projector, 3D Optical Configurations: D and P

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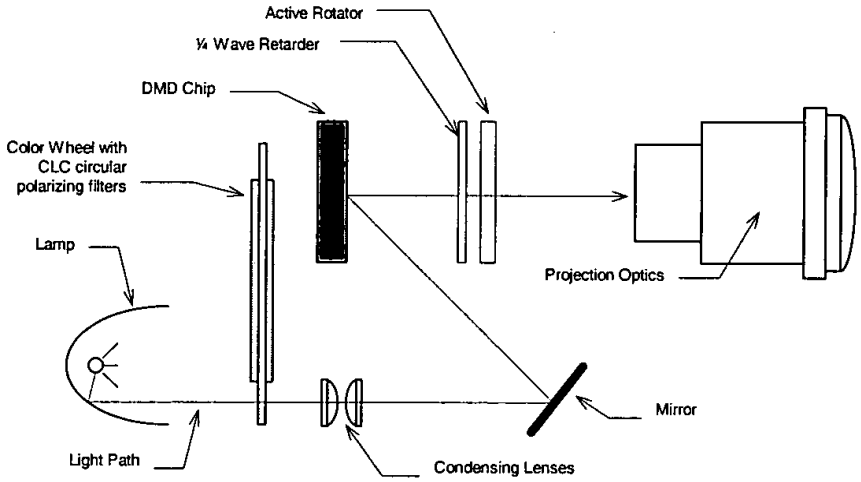

Figure 41- DMD Based Stereo 3D Projector, 3D Optical Configurations: E and Q

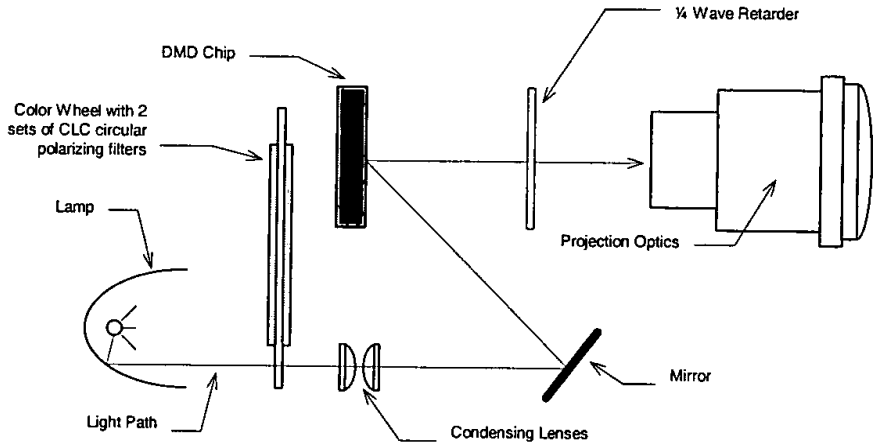

Figure 42 - DMD Based Stereo 3D Projector, 3D Optical Configurations: F, G, J, L, R, T, and V

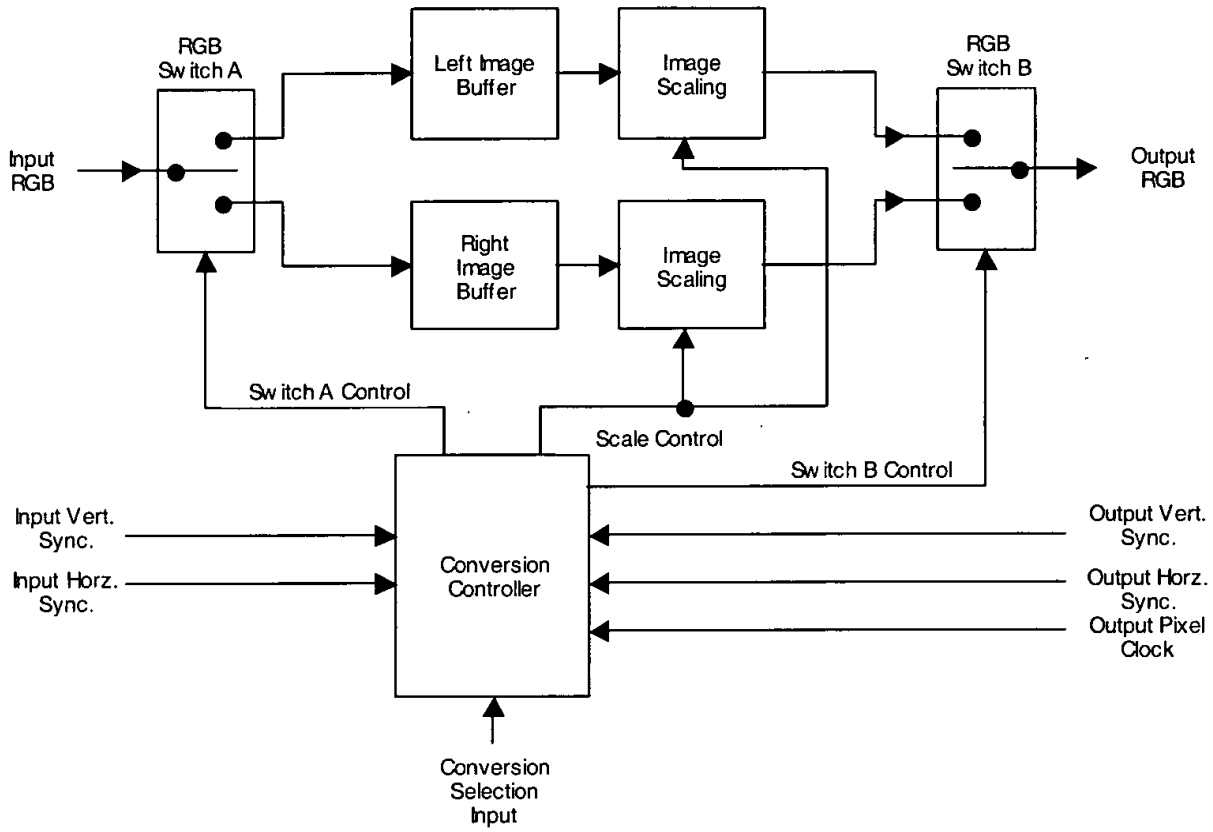

Figure 43. 3D Data Formatter Block Diagram

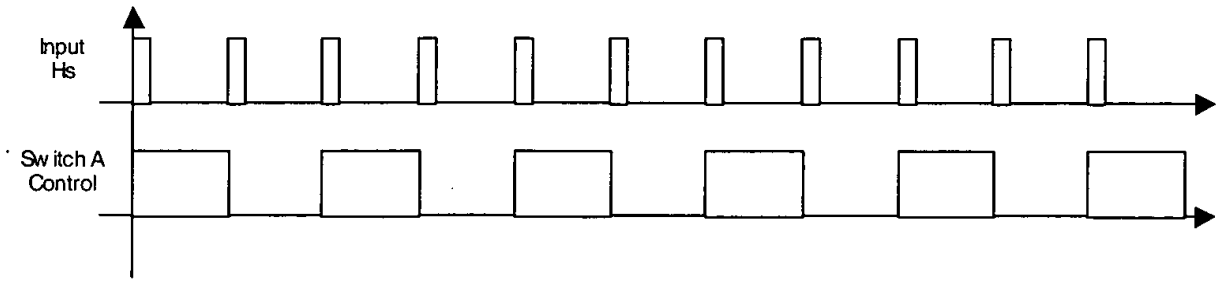

Figure 44. Switch A Control for Row-Interleaved RGB Input

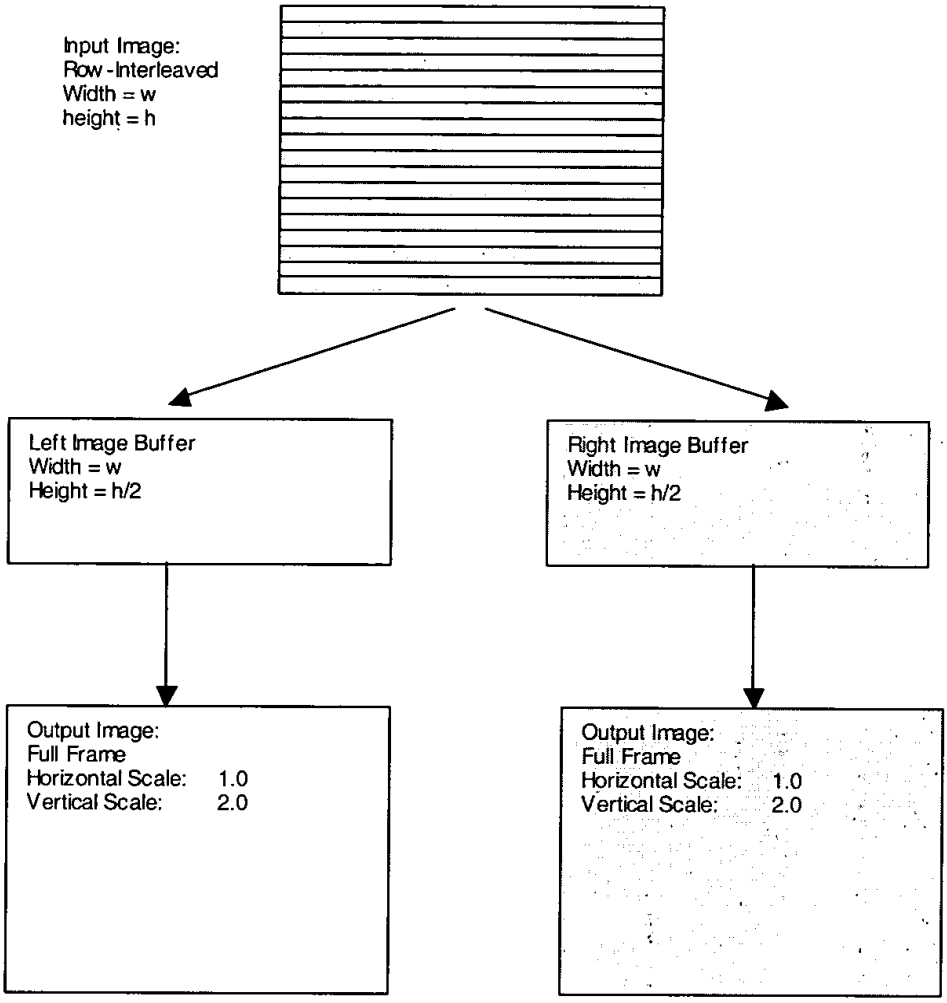

Figure 44. Output Scaling for Row-Interleaved 3D Format Input

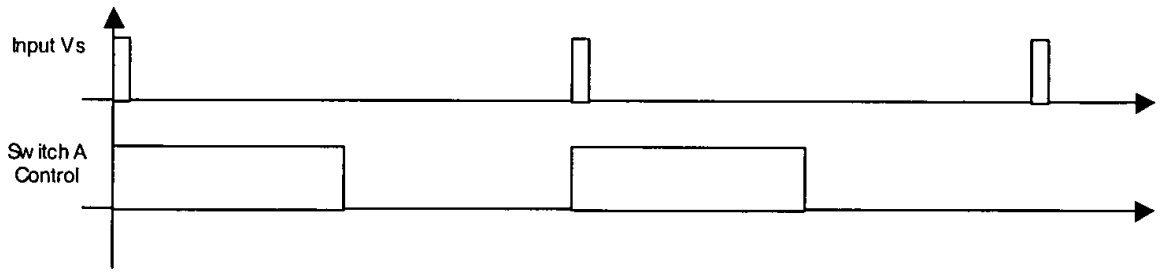

Figure 45. Switch A Control for "Over-Under" RGB 3D Format

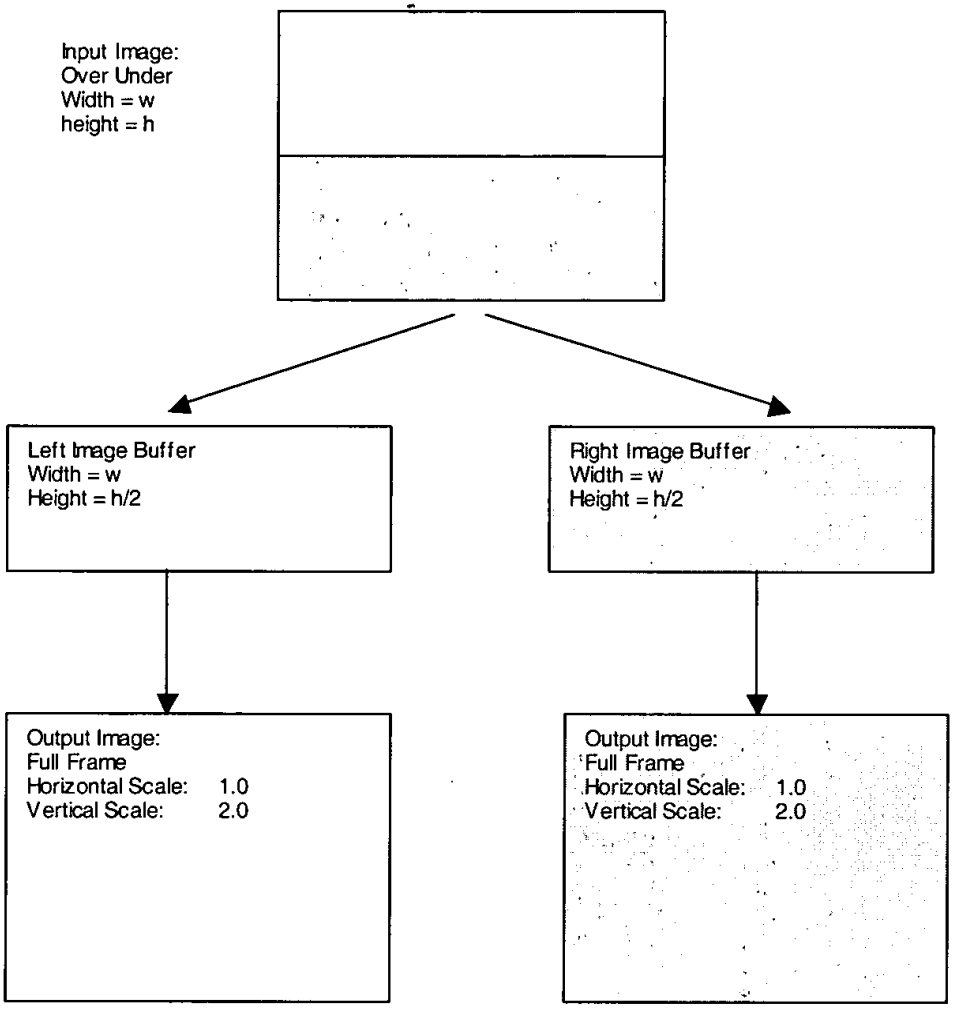

Figure 46. Output Scaling for Over-Under 3D Format Input

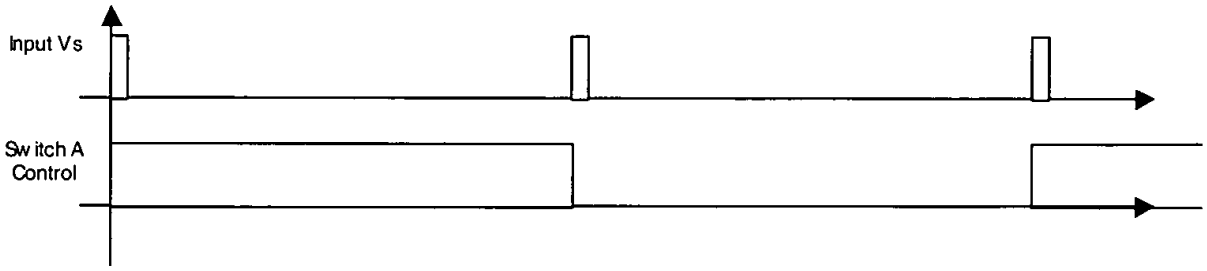

Figure 47 Switch A Control for "Page-Flipped" 3D Input

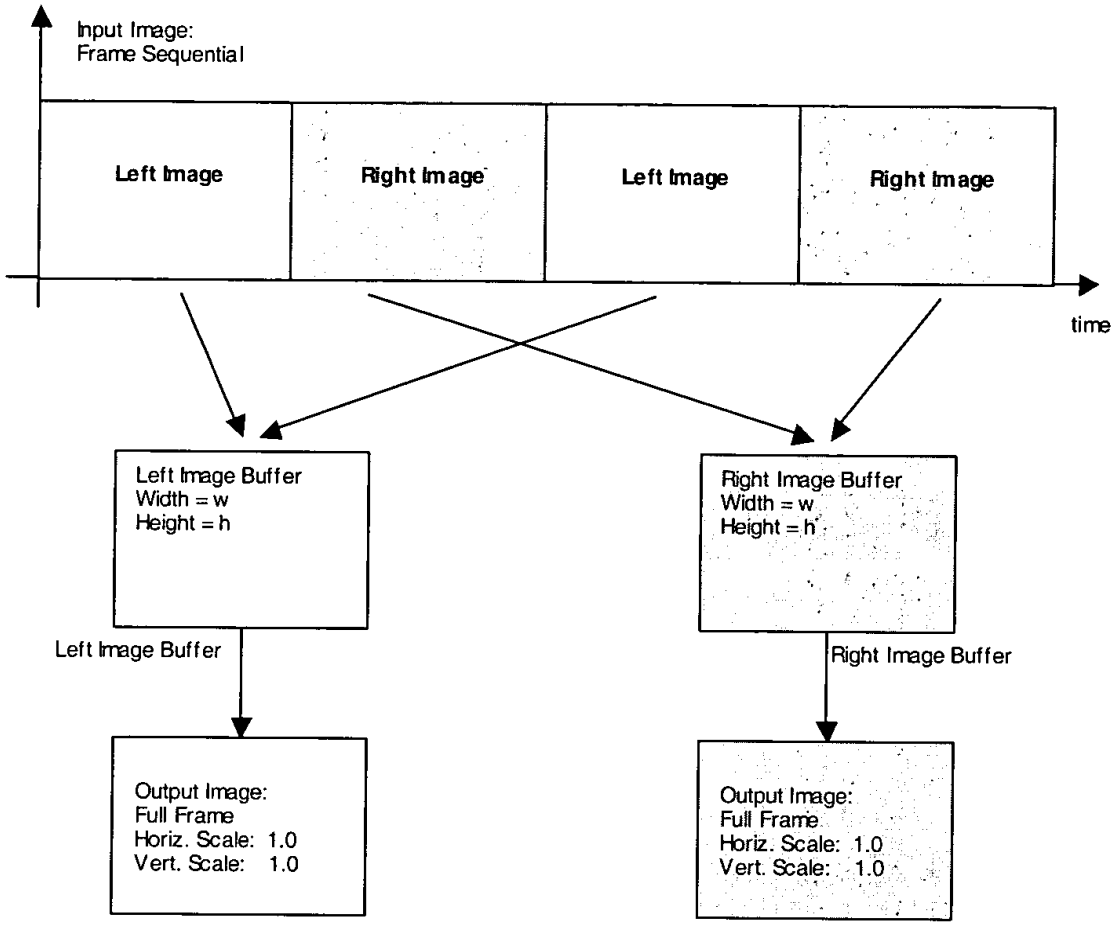

Figure 48. Output Scaling for "Page-Flipped" 3D Format Input

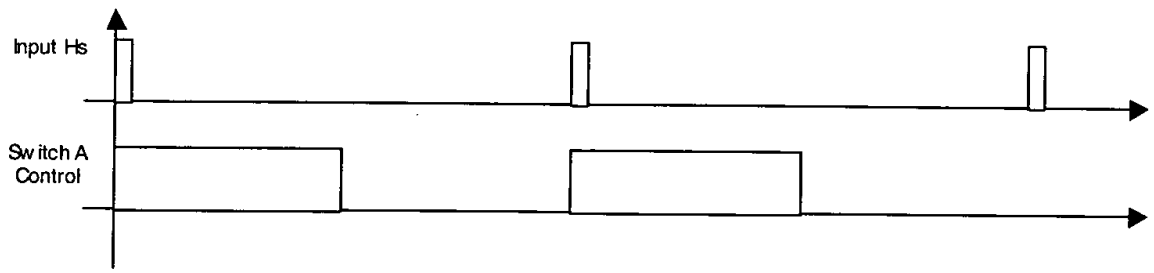

Figure 49 Switch A Control for "Side-by-Side" RGB 3D Input

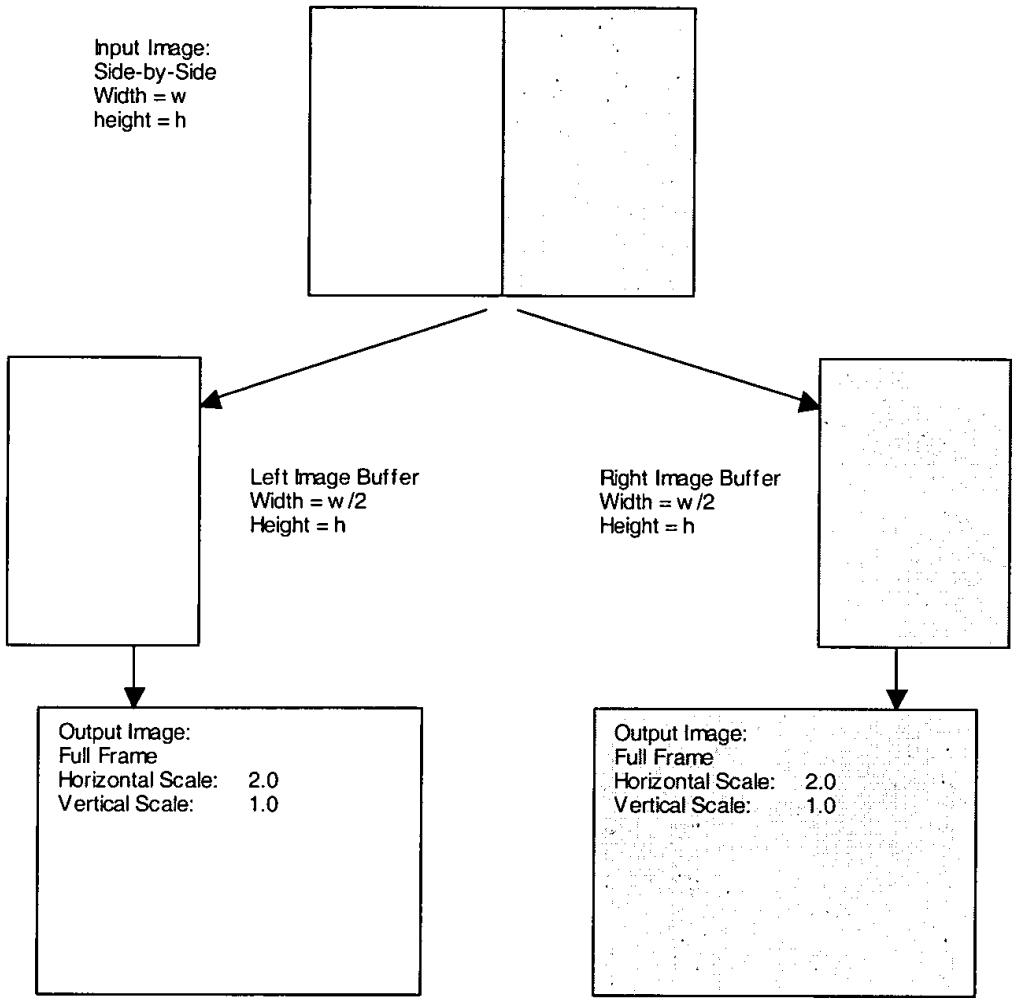

Figure 50. Output Image Scaling for Side-by-Side 3D Format Input

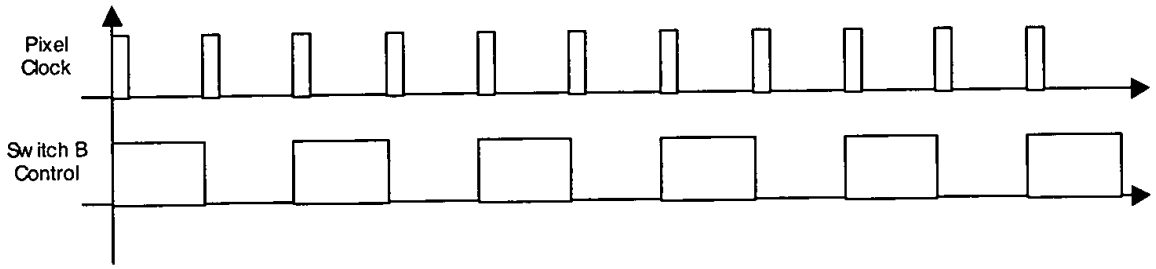

Figure 51. Switch B Control for 3D Data Formatter Block

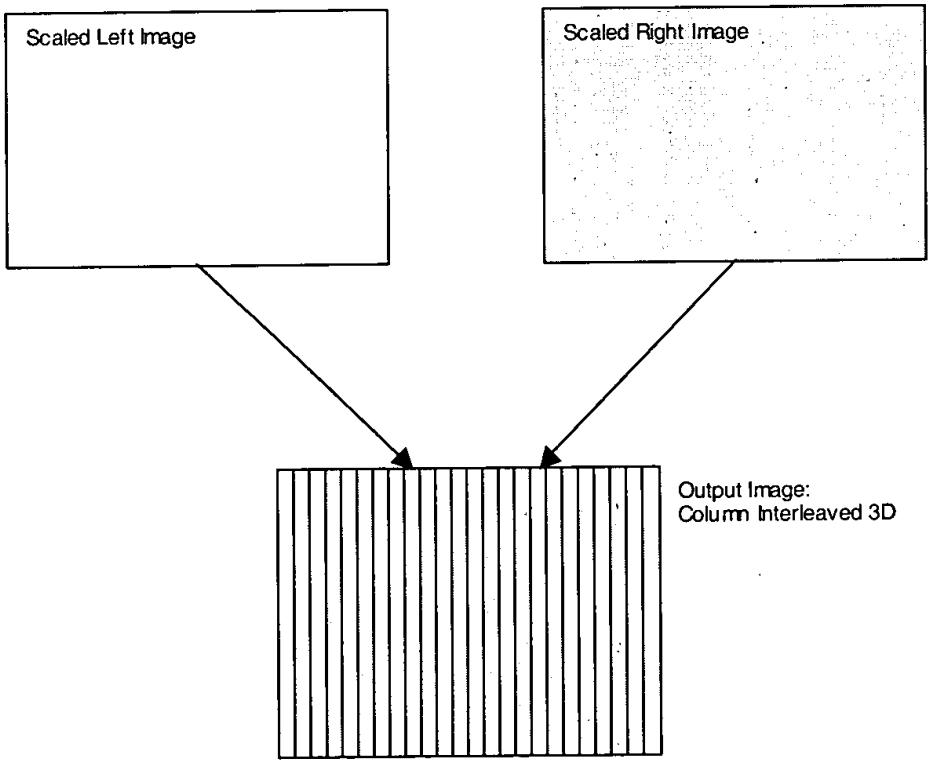

Figure 2. Graphical Illustration of 3D Data Formatter Output

Document ID: 0.7.10.6

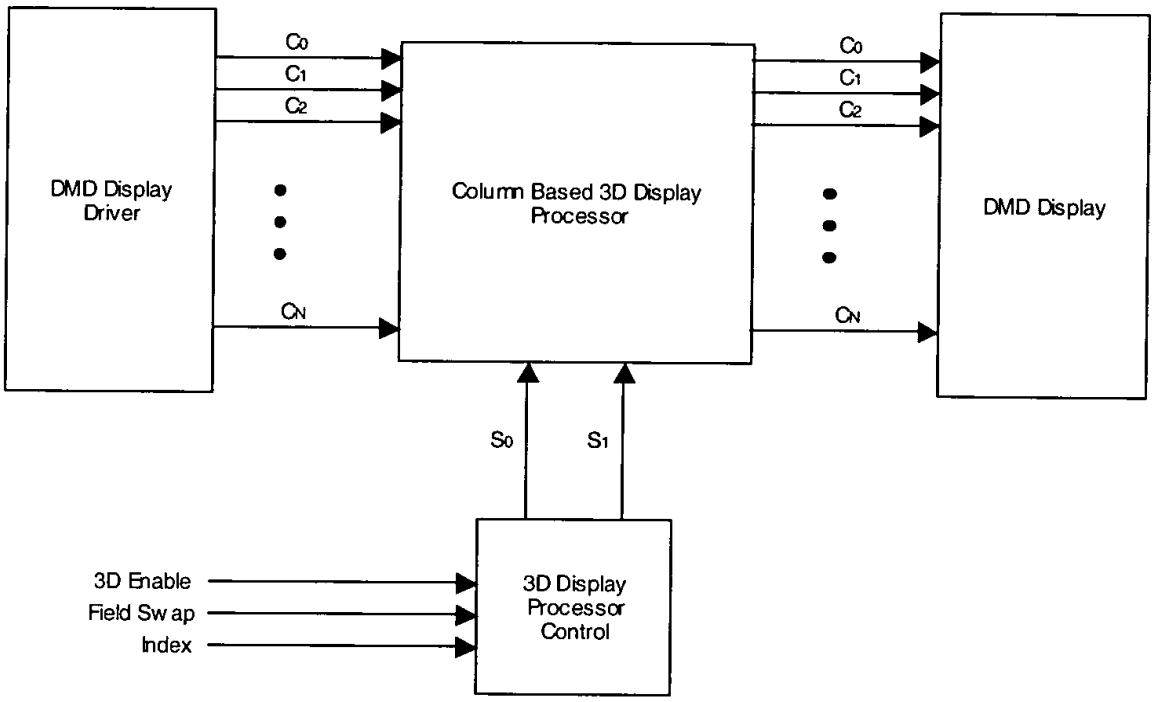

Figure 53. 3D Display Formatter

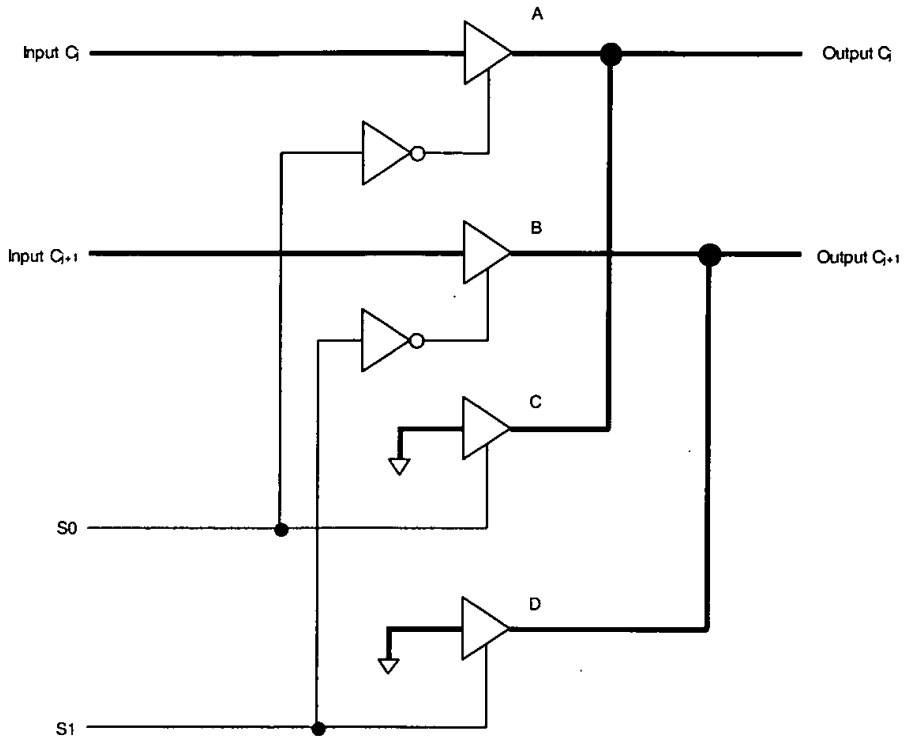

Figure 54. Block Diagram for 3D Display Processor Using Column Blanking Method

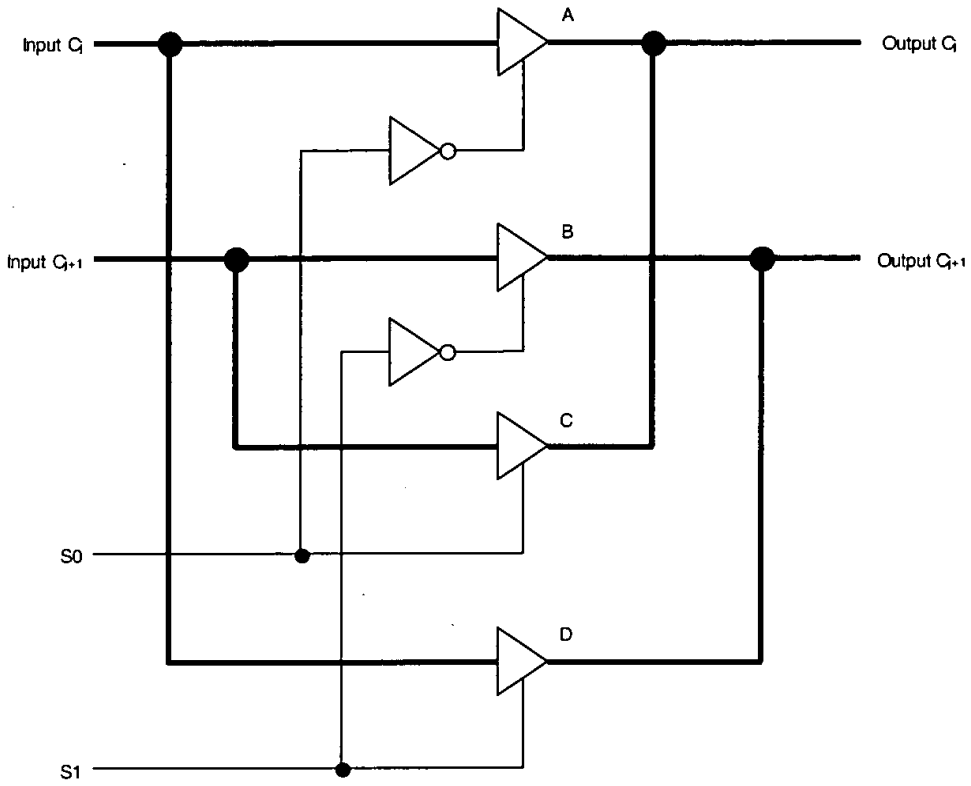

Figure 55

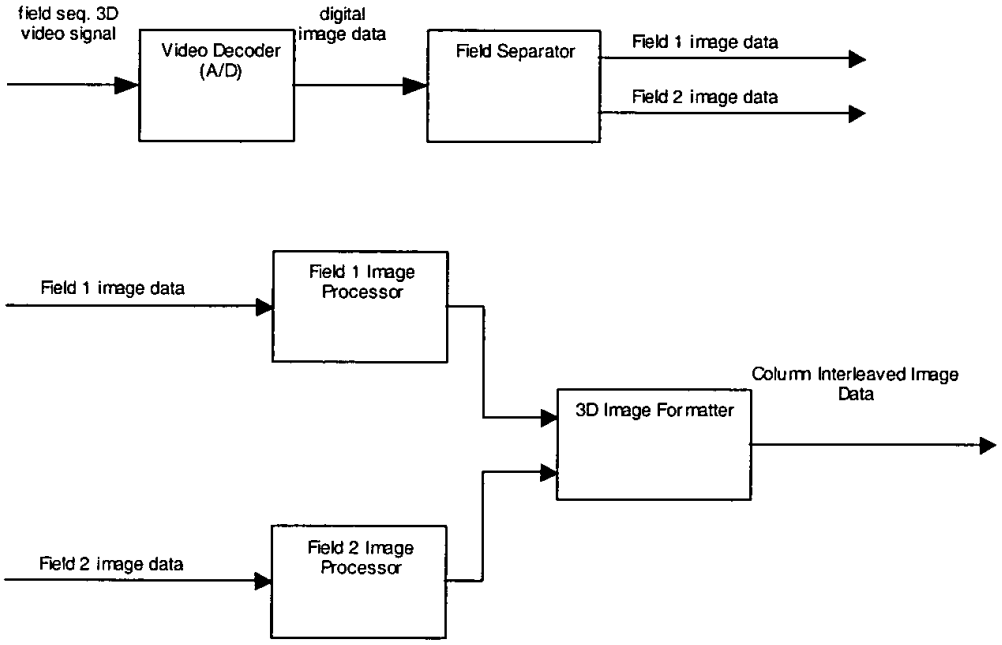
field seq. 3D
video signal
Video Decoder
(A/D)
digital
image data
Field Separator
Field 1 image data
Field 2 image data
Field 1 image data
Field 1 Image
Processor
Column Interleaved Image
Data
3D Image Formatter
Field 2 image data
Field 2 Image
Processor

Figure 57